

REMARKS

Consideration of the above amendment is respectfully requested since it is supported by the specification, does not add any new material and is filed prior to any consideration by the Patent Office.

Respectfully submitted,



Dale Lischer

Reg. No. 28,438

Attorney for Applicant

Dated: February 21, 2001  
SMITH, GAMBRELL & RUSSELL, LLP  
Suite 3100, Promenade II  
1230 Peachtree Street, NE  
Atlanta, GA 30309-3592  
Phone: (404) 815-3741

## CLAIMS

41. A method of automatically cutting out and unloading stacks of pieces from a lay-up made up of superposed layers of sheet material, the method comprising:

cutting out stacks of pieces from the lay-up on a cutting table on the basis of recorded information relating to the locations of the pieces on the surface of the lay-up;

unloading the stacks of pieces by means of at least one unloading tool that is controlled automatically;

splitting up the skeleton of the lay-up into a plurality of portions while the stacks of pieces are being cut out on the cutting table;

progressively bringing the lay-up onto an unloading table with the stacks of cut-out pieces and the skeleton of the lay-up not separated from one another; and

successively unloading the stacks of cut-out pieces by using the information relating to the locations of the pieces to move the unloading tool adjacent to the stacks on the unloading table and to take off each stack from the remainder of the lay-up by moving the stacks substantially parallel to the plane of the lay-up, without interfering with the stacks of pieces that have not yet been unloaded, stacks of cut-out pieces and portions of the skeleton of the lay-up being unloaded in a manner such as to clear the way on the unloading table for the stacks of pieces that have not yet been unloaded.

42. A method according to claim 41, whereby the stacks of pieces slide over the unloading table.

43. A method according to claim 42, whereby, while the stacks of pieces are being moved over the unloading table, the stacks of pieces are supported by a cushion of air.

44. A method according to claim 41, whereby the stacks of pieces roll over the unloading table.

45. A method according to any one of claims 42, 43, or 44, whereby each stack of pieces is driven over the unloading table by bringing the unloading tool to bear against the surface of the stack and by moving said tool.

46. A method according to claim 41, whereby, after each stack of pieces has been taken off from the remainder of the lay-up, each stack of pieces is accompanied by the unloading tool to a collector device.

47. A method according to claim 41, whereby, after each stack of pieces has been taken off from the remainder of the lay-up, each stack of pieces is propelled by the unloading tool to a collector device.

48. A method according to claim 46 or 47, whereby the unloaded stacks of pieces are directed to at least one collector device to form predetermined sets of pieces.

49. A method according to any one of claims 46 or 47, whereby the unloaded stacks of pieces are directed to at least one collector bin.

50. A method according to claim 46 or 47, whereby the unloaded stacks of pieces are directed to a collector device to form therein at least one queue ordered in a predetermined manner.

51. A method according to claim 41, whereby at least some of the portions of the skeleton of the lay-up are removed automatically from the unloading table.

52. A method according to claim 51, whereby at least portions of the skeleton that are situated along the longitudinal edges of the lay-up are removed from the unloading table by automatic removal means that are distinct from the unloading tool.

53. A method according to claim 41, whereby each set of a plurality of adjacent stacks of pieces in the lay-up where the pieces have shapes such that they are mutually interlocking is unloaded as a single stack of pieces.

54. A method according to claim 41, whereby each stack of pieces of size smaller than a minimum predetermined value is included in a non-fragmented portion of the lay-up skeleton, the resulting set of pieces and skeleton being unloaded as a single stack.

55. A method according to claim 41, in which the lay-up is covered with a plastic film prior to cutting out the stacks of pieces, such that, prior to removing the stacks of pieces from the unloading table, the portion of plastics film cut out with each stack of pieces and situated on each stack is taken off automatically.

56. A method according to claim 55, whereby each portion of plastic film situated on each stack of cut-out pieces is taken off by means of the unloading tool and then removed.

57. A method according to claim 55 or 56, whereby the portion of plastic film is taken off by suction.

58. A method according to claim 41, whereby the unloaded stacks of pieces are wrapped individually.

59. A method according to claim 41, whereby the unloaded stacks of pieces are marked.

60. A method according to claim 59, whereby the marking is performed by marking means carried by the unloading tool, before the stacks of pieces are removed from the unloading table.

61. A method according to claim 58 or 59, whereby the marking is performed after the stacks of pieces have been wrapped.

62. A method according to claim 41, whereby unloading and removal information is stored that is associated with the stacks of pieces and with at least some of the portions of the skeleton, each item of said information comprising:

- an unloading or removal rank;

- an item of pick-up information relating to the location to which the unloading tool should be brought on the stack of pieces or on the portion of skeleton;

- take-off information comprising information relating to a slide direction to be followed by the stack of pieces or by the portion of skeleton; and

- an unloading or removal address.

63. An installation for automatically cutting out and unloading stacks of pieces from a lay-up made up of superposed layers of sheet material, the installation comprising:

- a cutting table;

- a conveyor for moving a lay-up over the cutting table;

- a cutting tool;

- a carriage for moving the cutting tool above the cutting table;

- a control unit connected to the conveyor and carriage in order to move the cutting tool and a lay-up, carried by the conveyor, relative to each other in order to cut out stacks of pieces from the lay-up as a function of stored lay-out information relating to the locations of the pieces to be cut out on the surface of the lay-up;

- at least one unloading tool for automatically unloading stacks of cut-out pieces;

- an unloading tool support for moving the unloading tool and connected to the control unit in order to move the unloading tool adjacent to the stacks of cut-out pieces to be unloaded;

- an unloading table above which the unloading tool may be moved, the control unit being organized for:

- controlling the relative movements between the cutting tool and the lay-up carried by the conveyor in order to cut up the skeleton of the lay-up into a plurality of portions; and

- controlling the movements of the unloading tool in order to move the unloading tool into contact with the stacks of cut-out pieces that arrive with a lay-up on a surface of the unloading table situated downstream from the cutting table, and to take off the stacks of cut-out pieces successively from the remainder of the lay-up by moving them over the unloading table and by moving them substantially parallel to the surface of the unloading table.

64. An installation according to claim 63, whereby the surface of the unloading table has a plurality of orifices, and the unloading table is connected to a blower so that it can support the stacks of cut-out pieces via a cushion of air.

65. An installation according to claim 64, whereby the unloading table is subdivided into a plurality of sectors suitable for being connected selectively to the blower.

66. An installation according to claim 63, whereby the surface of the unloading table is provided with rolling beads.

67. An installation according to claim 63, whereby the installation further comprises a plurality of cutting tables, an unloading table, and means for moving the unloading table in order to bring the unloading table selectively to the ends of respective ones of the cutting tables.

68. An installation according to claim 63, whereby the unloading tool is mounted to move between a raised position and a lowered position so that the unloading tool comes to bear against the top surface of a stack of cut-out pieces by being moved from its raised position to its lowered position.

69. An installation according to claim 63, whereby the unloading tool is mounted on the unloading tool support which moves parallel to the surface of the unloading table, the unloading tool further being mounted to rotate relative to the unloading tool support about an axis perpendicular to the surface of the unloading table.

70. An installation according to claim 63, whereby the unloading table is provided with at least one finger suitable for being brought into contact with a top surface of a stack of cut-out pieces to be unloaded.

71. An installation according to claim 70, whereby the unloading tool being provided with a plurality of fingers between which the spacing is variable.

72. An installation according to claim 63, whereby the unloading tool is provided with a suction device.

73. An installation according to claim 63, whereby the unloading tool is provided with sweeper for sweeping the surface of the unloading table.

74. An installation according to claim 63, whereby the unloading tool is provided with a retractable needle for engaging the stacks of pieces.

75. An installation according to claim 63, whereby the unloading tool is provided with a marker for marking the stacks of pieces.

76. An installation according to claim 63, whereby the installation further comprises a collector for receiving stacks of cut-out pieces unloaded from the unloading table.

77. An installation according to claim 76, whereby the collector comprises a bin adjacent to the unloading table.

78. An installation according to claim 77, whereby the collector comprises at least one conveyor mounted to move along one side or end of or under the unloading table.



79. An installation according to claim 63, whereby the installation further comprises removal tools distinct from the unloading tool for removing the cut-up portions of the lay-up skeleton from the unloading table.

80. An installation according to claim 79, whereby the removal tools are disposed at least in part laterally relative to the unloading table.

3000 Rec'd PCT/PTO 22 FEB 2001

Please stamp with the date of receipt & return to addressee.

Applicant: POMMIER, Francois

Serial No.: TBA

Title: Method and installation for automatically cutting and removing stacks of pieces in a web of sheet material

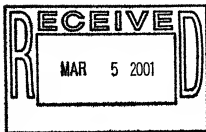
Papers Submitted: Transmittal Letter to US DO/EO/US (2 pages), Fee Transmittal fy 2001 (in duplicate), PCT Application as published, Translation of PCT Application, Preliminary Amendment (10 pages, including 8 pages of claims), Combined Declaration for Patent Application and Power of Attorney (2 pages), Associate Power of Attorney (2 pages), Recordation Form Cover Sheet (2 pages), Assignment of Application (1 page), Information Disclosure Statement (7 references), Certificate of Mailing Under 37 C.F.R. 1.10, \$1,490.00.00 filing fee check, \$40.00 assignment recordation fee check, Return Receipt Postcard

Sender: DL/lk

Date Sent: February 21, 2001 (Express Mail Label No. EL721440877US)

Our File: 041206.024

09/763445



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3/5/01



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,445	02/22/2001	Francois Pommier	041206.024	6242

7590 07/19/2005

Smith Gambrell & Russell  
Promenade II Suite 3100  
1230 Peachtree Street NE  
Atlanta, GA 30309-3592

EXAMINER

BLAKE, CAROLYN T

ART UNIT

PAPER NUMBER

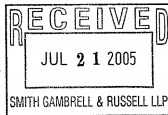
3724

DATE MAILED: 07/19/2005

10

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED  
JUL 21 2005  
7/21/05/bw



# Office Action Summary

Application No.

09/763,445

Applicant(s)

POMMIER, FRANCOIS

Examiner

Carolyn T Blake

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 41-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 41-80 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Restriction*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 41-62, drawn to a method of automatically cutting out and unloading stacks of pieces, classified in class 83, subclass 13.
  - II. Claims 63-80, drawn to an installation for automatically cutting out and unloading stacks of pieces, classified in class 83, subclass 78.
2. The inventions are distinct, each from the other because I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case (1) applies because the process as claimed can be practiced by another and materially different apparatus such as an installation with a robotic arm for moving a lay-up over the cutting table. This apparatus does not require a conveyor.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

### *Election of Species*

4. Upon electing either Group I or Group II above, further election is required of claims directed to the following patentably distinct species regarding the unloading tool:
  - A. FIG 3;

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- B. FIGS 9 and 10;
- C. FIG 11;
- D. FIG 12;
- E. FIG 13; and
- F. FIG 14.

5. After electing one of Groups A-F above, a further election is required of claims directed to the following patentably distinct species regarding the unloading station:

- G. FIG 2;
- H. FIGS 15 and 16;
- I. FIG 17;
- J. FIG 18;
- K. FIG 19;
- L. FIG 20;
- M. FIG 21; and
- N. FIG 22.

6. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species (one unloading tool and one unloading station) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim appears to be generic.

7. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

8. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

9. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

10. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T Blake whose telephone number is (571) 272-4503. The examiner can normally be reached on Monday to Friday, 8:00 AM to 5:30 PM, alternating Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CB

CB

June 2, 2005



Allan N. Shoap  
Supervisory Patent Examiner  
Group 3700



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/763,445  
Applicant(s) : POMMIER, François  
Filed : 02/22/2001  
TC/A.U. : 3724  
Examiner : BLAKE, Carolyn T.  
Title : Method and Installation for Automatically Cutting and  
Removing Stacks of Pieces in a Web of Sheet Material  
Docket No. : 041206.024  
Customer No. : 25461

Confirmation No.: 6242

Mail Stop AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

RESPONSE TO OFFICE ACTION FOR ELECTION/RESTRICTION

This is in response to the requirement for restriction dated July 19, 2005. A one-month extension of time, together with the associated fee, is filed herewith.

In the Office Action dated July 19, 2005, the Examiner has required restriction to one of the inventions I and II under 35 U.S.C. §121.

Applicant provisionally elects with traverse the subject matter of Group II, namely claims 63 - 80, drawn to an installation for automatically cutting out and unloading stacks of pieces, classified in class 83, subclass 78. Additionally, Applicant hereby elects Species A (Figure 3), including claims 68-70, relating to the unloading tool and Species G (Figure 2), including claims 63-67 and 76-77, relating to the unloading station.

Examination on the merits is awaited.

Respectfully submitted,

SMITH, GAMBRELL &amp; RUSSELL, LLP



By: Dale Lischer, Reg. No. 28,438

Dated: September 13, 2005  
1230 Peachtree Street, N.E.  
Suite 3100, Promenade II  
Atlanta, Georgia 30309-3592  
Tel: (404) 815-3706  
Fax: (404) 685-7006

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Inventor(s): POMMIER, François

Serial No.: 09/763,445

Filing Date: 02/22/2001

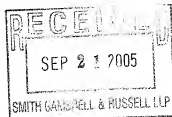
Title: Method and Installation for Automatically Cutting  
and Removing Stacks of Pieces in a Web of Sheet Material

Papers Submitted: 1) \$120.00 Check;  
2) Transmittal Form (1 page);  
3) Fee Transmittal for FY 2005 (1 page);  
4) Petition for Extension of Time (1 page);  
5) Response to Office Action for Election/Restriction  
(1 page); and  
6) Return Receipt Postcard.

Sender: DL/mmd

Date Sent: September 13, 2005 (first class mail)

Atty. Dkt. No.: 041206.024



9/21/05bw